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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,383	01/05/2004	James G. Wohlford	3156.96US02	2651

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EXAMINER
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AYRES, TIMOTHY MICHAEL

ART UNIT	PAPER NUMBER
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3637

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/751,383	<b>Applicant(s)</b> WOHLFORD ET AL.	
	<b>Examiner</b> Timothy M. Ayres	<b>Art Unit</b> 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4-6, 8, and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-6, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/08/06 has been entered.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: In claim 5, a opposing radiused guides and a frustoconical section on the disk head are not recited or described in the specification.

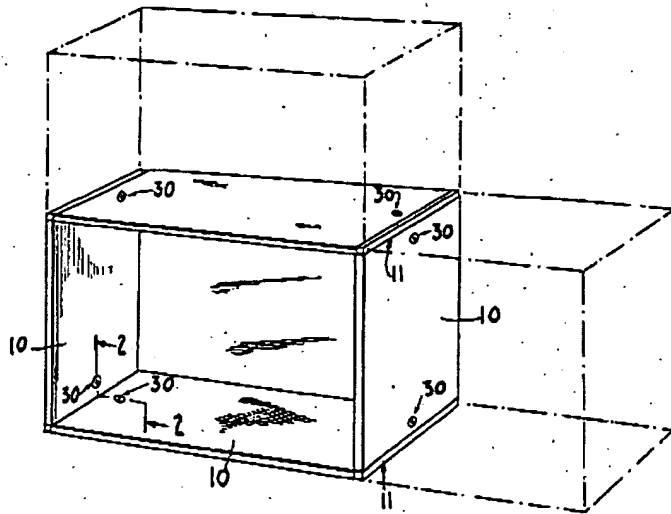
### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 2, 4, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,967,747 to Bus in view of US Patent 4,490,064 to Ducharme.

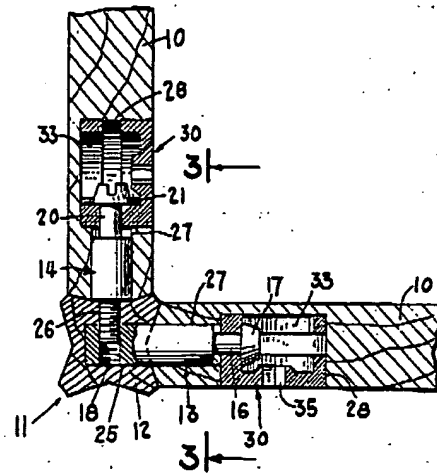
4. Bus '747 teaches a knockdown furniture connector system. Disclosed in figure 1 is a rectangular box using the connector system, the scope of the connector system implicitly goes beyond just a box and can be used for any sort of furniture including a home entertainment system (Col. 1, lines 37-41). The system includes a plurality of host

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structure (12) and a plurality of cross supports (10) held together with a plurality of fastening devices. The fastening devices are locking bodies (13,14), which are fastened to each other at their respective distal ends with an engagement member (18,23) inside slots (25,26) of the host structure (12). The proximal ends of the locking bodies (13,14) have a head (17,21) that connects to a cam (30) so that the cross support (10) and the host structure (12) are fastened together by rotating the cam (30) in a direction to cause a linear motion of the locking body (13,14) to draw the cross support (10) and host structure (12) together. (Col. 3, lines 50-75, Col. 4, lines 1-6). A central shaft (15,19) is on the locking body (13,14) between the head (17,21) and the engagement member (18,23). The locking body (13,14) and cam (30) are disposed in a locking body aperture (27) and a cam aperture (28). The cam (30) includes a cam opening (32). The edge of the cross support (10) engages the wall of the host structure (12) when the fastening device is secured. The cam (30) is embedded in the cross support (10) as seen in figures 1-3. The cross support (10) is a panel with a portion (13,14, 30) of the fasteners contained within.



Bus '747 Figure 1

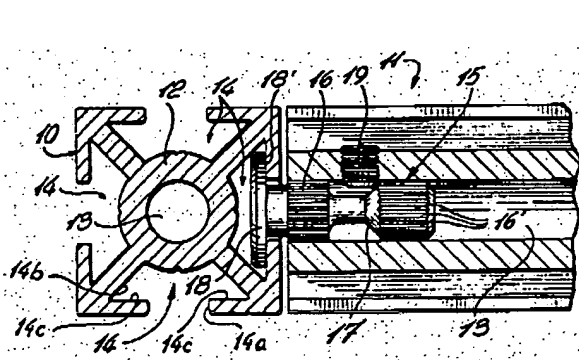


Bus '747 Figure 2

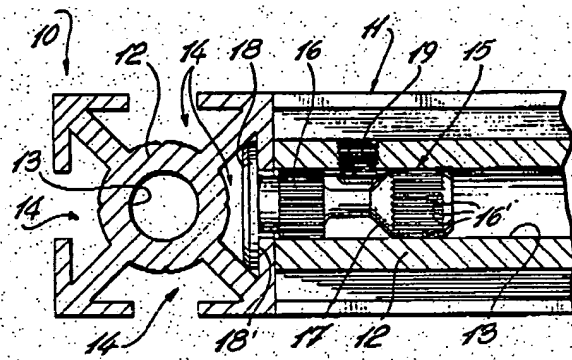
5. Bus '747 does not disclose expressly the host structure as a geometrically configured tube with the slot having a narrower outer portion and a wider inner portion on the face of the host structure and a ball as the head on the locking body. Ducharme '064 discloses a joint for a modular frame construction. A geometrically extruded tube (10) is the host structure and is fastened to the cross support (11) via a locking body (15). The locking body (15) has an engagement member (18) that fits in and is movable in the wider portion (14b) of slot (14) of the geometrically extruded tube (10) as seen in figure 2. The contact face (18') of the engagement member (18) engages the internal face (14c) of a narrow portion (14a) of the channel (14) as seen in figure 3 when a set screw (19) is tightened to act on a camming surface (17) of the locking body (15). At the time of the invention it would have been obvious for a person of ordinary skill in the art to replace the host structure of Bus's system with the host structure of Ducharme and

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replace the engagement member of the locking body of Bus with the engagement member of the locking body of Ducharme so the host structure does not require specially machined apertures and thereby reducing the cost. It would have been obvious for a person of ordinary skill in the art to modify Bus '747 by having the locking body with head element in a ball configuration, since the applicant has not disclosed that having the head element be a ball solves any stated problem or is for any particular purpose and it appears that the locking body would perform equally well with Bus' '747 head element since it is functionally equivalent and works equally well.



Ducharme '064 Figure 2



Ducharme '064 Figure 3

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,967,747 to Bus in view of US Patent 4,490,064 to Ducharme as applied to claims 1, 2, 4, 6, 8, and 9 above, and further in view of Design choice. Bus in view of Ducharme disclose every element as claimed and discussed above except host structure's narrower portion of the furniture system be defined by opposing radiused guides and the disk head of the furniture system have a frustoconical section connecting to the locking body distal neck.

7. It would have been obvious matter of design choice to modify Bus in view of Ducharme by having the host structure's narrower portion of the furniture system be defined by opposing radiused guides, since applicant has not disclosed that having the radiused guides on the host structure solves any stated problem or is for any particular purpose and it appears that the furniture system would perform equally well with the guides being square.

8. It would have been obvious matter of design choice to modify Bus in view of Ducharme by having the disk head of the furniture system have a frustoconical section, since applicant has not disclosed that having frustoconical section on the disk head solves any stated problem or is for any particular purpose and it appears that the furniture system would perform equally well with disk head with a square section connecting the locking body neck.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 2,967,747 to Bus in view of US Patent 4,490,064 to Ducharme as applied to claims 1, 2, 4, 6, 8, and 9 above, and further in view of US Patent 6,161,262 to Pfister. Bus in view of Ducharme disclose every element as claimed and discussed above except host structure's narrower portion of the furniture system be defined by opposing radiused guides and the disk head of the furniture system have a frustoconical section connecting to the locking body distal neck. Pfister teaches a clamp assembly (10A) that is fastened in a slot (86c). The clamp assembly has a disk head with a frustoconical section (124, 126). The host structure (14) has a slot (86c) that is defined by radiused

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guides (80b, 80c). At the time of the invention it would have been obvious for a person of ordinary skill in the art to modify the furniture system of Bus in view of Ducharme by adding radiused guides and a frustoconical section to the disk head so that the disk head can be installed in mid-slot (Pfister '262, Col. 2, Lines 26-39).

### ***Response to Arguments***

10. Applicant's arguments filed 8/08/06 have been fully considered but they are not persuasive. Bus does teach the fastening devices (13,14) to be secured together within the host structure and Ducharme does teach a connector member (15) that is locked in place with a set screw using a camming action, but the combination of Bus in view of Ducharme does not have these features and the combination teaches all the limitations as recited in the claims. The combination is formed by removing every element within Box B' of Bus in figure 2 below and replacing it with every element in Box A' of Ducharme in figure 3 below and since the locking body (16) of Ducharme functions the same as the locking body (13) of Bus, the replacement can be made without any modification to other structures (i.e. they get pulled to the right as seen in the figures below by a camming mechanism).

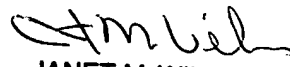


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TMA  
8/16/06



JANET M. WILKENS  
PRIMARY EXAMINER  
Art Unit 3637